

## **Proposed Final Version of the 303(d) List**

### **Summary of Public Comments and Division Responses**

(Note: in some instances, public comments have been summarized in order to group similar observations by multiple reviewers.)

#### **GENERAL COMMENTS: Process**

**Written Comment.** *The draft 303(d) review process was inappropriately short. The comment period should be extended. (Multiple reviewers)*

**Division Response:** The draft 303(d) List was presented to the Tennessee Water Quality Control Board on July 23, the same day that the legal and public notices were mailed. It was posted on the Department's "What's New" homepage the next morning. The notices appeared in regional newspapers on approximately July 27. We held 14 public meetings in 13 different cities.

The almost seven week comment period officially ended on September 6, 2002. We do not dispute that additional review time might have been desirable, but EPA's stated deadline is October 1. We only left ourselves 3 weeks following the completion of the comment period to respond to all the comments received and finalize the document.

It should be noted that comments concerning Tennessee's proposed final 303(d) List could also be directed to EPA.

**Written Comment.** *The 303(d) should be promulgated by the Tennessee Water Quality Control Board.*

**Division Response:** We do not agree that there is a statutory basis for doing so. Under the Tennessee Water Quality Control Act, the 303(d) List is a water quality assessment report based on the interpretation of regulations, in this case, water quality standards. It is a legal responsibility of the TDEC Commissioner, not the Board.

Currently, the Division is free to take regulatory actions based on the latest assessment information. The List can be superseded if more recent information show it to be inaccurate.

**Written Comment.** *The 303(d) List needs an index. (Multiple reviewers)*

**Division Response:** We agree and one has been added for the proposed final version.

**Written Comment.** *The Division disregarded data submitted by citizens.*

**Division Response:** As stated in the draft, we reviewed all the data that were provided as part of the assessment process. But not all information was considered sufficient to be used to assess streams, especially if sample collection and/or analysis questions could not be resolved.

**Written Comment.** *Cost share monies will be more available for streams that are 303(d) listed, a factor that the Division should consider before it proposes the delisting of streams.*

**Division Response:** The desire for, or availability of, cost share monies is not a proper basis for 303(d) listing. While we believe that the highest priorities for the development of control strategies should be those streams that violate water quality standards, we do not oppose the direction of assistance to non-303(d) listed streams if it addresses obvious water quality problems.

#### **GENERAL COMMENTS: Use of Criteria and Designated Uses**

**Written Comment.** *It is inappropriate for Tennessee to list streams as impacted by “habitat alteration” on the 303(d) List as it is not a pollutant as defined in the federal regulations.*

**Division Response:** We believe it is necessary to list these streams. Removal or alteration of habitat is clearly an impairment if it results in the condition of pollution. We expect that EPA will inform us if we have developed our 303(d) List in a manner inconsistent with the federal regulations.

**Written Comment.** *The term “organic enrichment” is not defined anywhere in the document. As there is no organic enrichment criterion, it should not be used as a cause of impairment.*

**Division Response:** Organic enrichment is a condition in which elevated levels of nutrients or other organic substances are introduced into a stream or lake. This introduction has an effect that can include stimulation of biomass or removal of water column oxygen levels. These conditions can cause undesirable ecological changes such as increased plant growth, favoring species able to take advantage of the changes.

This condition is regulated under the generic “free from” narrative criteria. As organic enrichment has the potential to cause undesirable changes or degradation in water quality, it is clearly pollution and the excess organics are pollutants.

**Written Comment.** *Tennessee should continue to refine methods to undertake biological assessments of the state’s waters.*

**Division Response:** We agree with the commenter that biological survey methods provide the most definitive assessment of the degree of support of the fish and aquatic life designated use. As the commenter may be aware, we have developed a statewide standard operating procedure for these biological monitoring activities.

**Written Comment.** *Biocriteria may be an inappropriate methodology for assessing fish and aquatic life use support. Streams that are obviously impacted have been ruled by the Division to pass biocriteria.*

**Division Response:** We respectfully disagree. Biocriteria provide an objective measure of the biological integrity of the stream, which is precisely what the fish and aquatic life criteria are designed to protect.

**Written Comment.** *The Division improperly used narrative criteria in the development of the List.*

**Division Response:** The narrative criteria established by the Tennessee Water Quality Control Board in 1200-4-3 were properly promulgated. Rulemaking procedures were followed and public participation opportunities went far beyond prescribed measures. The rule was certified by the Attorney General’s Office and approved by the Environmental Protection Agency.

In establishing the narrative criteria, the Board clearly intended to provide assessment latitude to the Division for substances and conditions that do not currently have numeric national criteria. By publishing peer-reviewed reports that explained precisely how we intended to interpret narrative criteria, we have developed explicit methods for assessing substances that impact a substantial number of streams in Tennessee. Included among these are siltation, habitat alteration, biological integrity, nutrients, and pH. These methodologies are referenced in the draft 303(d) List.

**Written Comment.** *The Division should not proceed to finalize the 303(d) List until the proposed narrative criteria have been formally promulgated as part of the General Water Quality Criteria.*

**Division Response:** As stated previously, our water quality standards explicitly direct us to use both numeric and narrative criteria in the development of the draft list.

**Written Comment.** *If Tennessee had subcategories of designated uses, water quality assessments could be more precise and useful. Failure to subcategorize uses leads to unnecessary TMDL generation.*

**Division Response:** We are familiar with the national debate on this subject. We are certainly in favor of approaches that lead to more accurate identification of the public's uses of surface waters. Of course, the goal of that effort should be accuracy, not TMDL avoidance.

While an interesting comment, this really goes to water quality standards rather than to the draft 303(d) List. The next Triennial Review will provide an opportunity to further discuss designated uses.

**Written Comment.** *The Division is using its proposed biocriteria as if they are regulations. This is improper as they have not been promulgated.*

**Division Response:** The existing narrative criterion for biological integrity is found in 1200-4-3-.03(3)(j). The biocriteria being referenced by the commenter are simply regional numeric interpretations of the existing narrative standard.

#### **GENERAL COMMENTS: Assessment Methodologies**

**Written Comment.** *Unless the Division forwards all data used in individual assessments, the public cannot adequately review these listings. Such data, along with chain-of-custody documentation, should be provided.*

**Division Response:** At the beginning of the review process, we stated our willingness to discuss individual assessments. Some of the information utilized in the assessment process is readily accessible in public databases such as STORET. All of it is part of the formal record for this process.

However, we cannot package and individually provide to each reviewer all data used in the assessment process, for the streams of particular interest to that reviewer. Our files can be reviewed during working hours for those wishing to undertake an in-depth investigation.

**Written Comment.** *If regulated sources (either point or nonpoint) are in compliance with properly issued permits, the stream should not be listed.*

**Division Response:** The 303(d) List is a compilation of streams that fail to support classified uses after implementation of the controls required by Section 301. It is uncommon for all sources of a pollutant within a watershed to come from regulated sources. But even if all sources were regulated and all discharges were meeting existing permit limits or BMP requirements, the stream would still be appropriately listed if it violated water quality standards. It would be the role of the TMDL to investigate whether the existing limits or controls were adequate.

**Written Comment.** *Some streams were proposed for delisting simply on the basis that facilities located on them are now in compliance with their permits.*

**Division Response:** All the streams we proposed for removal from the 303(d) were on the basis of one or more of the four acceptable delisting rationales set out by EPA. None of the segments in Appendix A, B, or C fit the scenario described by the commenter.

**Written Comment.** *The number of 303(d) listed segments points to the need to increase enforcement efforts. (Multiple respondents)*

**Division Response:** The goal of Tennessee's program is clean water and enforcement is certainly one of the tools that can be used, and is being used, to reach this goal.

**Written Comment.** *The sources assigned to the pollutants on individual listing are confusing as they are general rather than specific. It implies that the Division knows the sources of pollutants when in most cases, they do not. The category "unknown source" should be used more frequently.*

**Division Response:** We use the source categories suggested by EPA. The commenter is correct that in many cases, the Division only has a general idea of the sources of specific pollutants. It is the job of the TMDL, rather than the 303(d) List, to specifically identify sources. We have used the "unknown source" category when we consider it appropriate.

If the commenter has evidence that an additional source of a pollutant is present, or that listed sources are not contributing to pollutant loadings, we would like to be provided that information.

**Written Comment.** *The 303(d) List column called “Pollutant Source” should be renamed “Suspected Pollution Source.”*

**Division Response:** The assessment methodology information provided in the introduction to the 303(d) explains the uncertainty associated with the identification and selection of sources, which we consider adequate.

**Written Comment.** *The Division does an inadequate job differentiating between naturally occurring conditions and pollution, especially in low flow scenarios.*

**Division Response:** We have long recognized this as a potential complicating factor and have proactively attempted to factor flow considerations into our assessments. Our biologists are trained to identify wet weather conveyances as defined in the general water quality criteria. We do not apply fish and aquatic life criteria to these waters.

Additionally, when performing habitat assessments, we look for obvious signs of prolonged dryness. Streams are observed at multiple times, including low flow periods. Streams that are dry or not flowing are described as “not assessed” and are not listed.

**Written Comment.** *The Division has an obligation to list waters severely impacted by dams and reservoirs.*

**Division Response:** We agree. Those segments are listed and we propose to maintain them on the list.

**Written Comment.** *The Division listed streams on the basis of modeling results, which is inappropriate.*

**Division Response:** There are no streams on Tennessee’s 303(d) List placed solely on the basis of modeling results.

**Written Comment.** *It is difficult to locate the impaired segments based on the information provided in the 303(d) List. (Multiple commenters)*

**Division Response:** The Department has posted maps on its homepage that help illustrate the locations of the impaired segments. (This information is at <http://www.state.tn.us/environment/wpc/watershed/mapsummary.htm>)

Additionally, we are pursuing the linkage of the Assessment Database to the maps in order to make them interactive. By clicking on a stream segment on the map, citizens will be able to access assessment information.

**Written Comment.** *The federal Clean Water Act requires that all “threatened” streams be listed on the 303(d) List, something that Tennessee has not done.*

**Division Response:** As a practical matter, we seldom have data that clearly documents predictable patterns in water quality. As an aside, indications are that the new federal rules will drop “threatened waters” from the listing requirements.

**Written Comment.** *The State must list all impaired or threatened waters.*

**Division Response:** We agree, provided that data are available to justify such an assessment.

**Verbal Comment.** *High quality streams should be listed on the 303(d) List, as they need a TMDL to prevent degradation.*

**Division Response:** These waters are subject to 303(d) if they meet the listing protocol. We consider the existing antidegradation requirements found in water quality standards to provide a much more practical shield against degradation in high quality waters.

**Written Comment.** *The State must use all existing data and provide for public input to the 303(d) listing process.*

**Division Response:** We agree and actively solicited data from other sources. We note that the regulation further defines existing data as being “readily available”. Additionally, data must be scientifically defensible.

**Written Comment.** *The data provided to the Division by the Tennessee Valley Authority should be provided for the reviewer.*

**Division Response:** The contents of the Division’s files are available for review. Also, TVA may be approached directly for their data.

**Written Comment.** *There is no consistency between the Tennessee Valley Authority information on the quality of their reservoirs and the assessments in the 303(d) List.*

**Division Response:** TVA's information was consistently incorporated into our assessment process. However, their reservoir rating system has a different basis than does Tennessee's 303(d), which is based on state water quality standards.

**Written Comment.** *The data provided to the Division by the Harpeth River Watershed Association should be used in the formation of the 303(d) assessment for the Harpeth watershed.*

**Division Response:** As presented in the list methodology section, we reviewed all the data submitted to us. However, not all data provided to us were used to directly assess streams for reasons previously explained.

**Written Comment.** *The regulated community should have greater responsibility in providing ambient water quality data to the Division. These additional data could assist in the statewide water quality assessment.*

**Division Response:** We agree and for several years have been placing requirements for increased stream monitoring into individual permits.

**Written Comment.** *The latitude and longitude or a written description of each listed segment should be provided.*

**Division Response:** We have not compiled the latitude and longitudes of the listed segments. After all, a stream is not a single point on a map. We have posted watershed maps on our homepage (which we hope to make interactive) to assist the users of the 303(d) in locating the listed segment.

### **GENERAL COMMENTS: TMDLs**

**Written Comment.** *303(d) listed segments should not be delisted on the basis that a TMDL was completed and subsequently approved by EPA.*

**Division Response:** We respectfully disagree. The completion of a control strategy, such as a TMDL, is an appropriate basis for delisting. By downloading such segments or pollutants from the list, they can be easily differentiated from other streams still needing a TMDL.



Our larger and more comprehensive report, the 305(b) Report, would still include these streams as impacted if the TMDL had not led to the water quality standard attainment.

**Written Comment.** *The 303(d) List did not adequately provide information about TMDL priorities.*

**Division Response:** We think that it does. TMDL prioritization was locked into place when the existing 1998 memorandum of agreement with EPA was executed and this same schedule was subsequently incorporated into the Consent Degree for the TMDL lawsuit filed against EPA. The Division is not in a position to revise the schedule at this time.

**Written Comment.** *The 303(d) List refers to an effective control strategy as a proper basis for delisting. What does it mean by that?*

**Division Response:** An effective control strategy is either a completed and approved TMDL, or another process such as enforcement measures, Superfund remediation, or the targeted installation of best management practices. The condition placed on the non-TMDL control strategies is that compliance with water quality standards must be expected in the short term.

## **SPECIFIC COMMENTS**

**Written Comment.** *Pigeon Roost Creek should not be listed for pathogens as recent data indicate that the water quality standard is being met.*

**Division Response:** The commenter submitted samples results collected over a 12 day period (August 5 –16, 2002) indicating fecal coliform levels generally less than 200 cfs/100 ml in Pigeon Roost Creek. However, the previous data submitted by the commenter, under a wider variety of times and conditions, indicated numerous fecal coliform levels over 1,000 cfu/100 ml, a violation of the existing water quality standard. The Division considers the previous data to be more representative of conditions in Pigeon Roost Creek.

**Written Comment.** *Pigeon Roost Creek should not be listed for nutrients.*

**Division Response:** Pigeon Roost Creek is on the 303(d) List because it violates the biological integrity standard. Additionally, nutrient levels exceed the Division's regional numeric interpretation of the narrative nutrient criteria. That is appropriate grounds for listing the stream as impacted by nutrients.

**Written Comment.** *The portion of Cheatham Reservoir between the Bordeaux Bridge and Woodland Street could be upgraded to "partially supporting" from "not supporting" in recognition that combined sewer overflows have lessened.*

**Division Response:** Due to the magnitude of the violations of the pathogen standard, we consider "not supporting" to be the appropriate category for this section, which is also posted against water contact recreation.

**Written Comment.** *Shasta Branch is incorrectly identified on TDEC's map. "Urban runoff" is a more appropriate source of pathogens than is "collection system failure". The stream should be assessed as partially supporting rather than not supporting.*

**Division Response:** The levels of pathogens in this stream justify "not supporting" as the appropriate category. We will change the source of the pathogens to urban runoff and correct the map.

**Written Comment.** *Additional dry weather sampling in Drakes Branch justifies delisting the stream.*

**Division Response:** The commenter submitted three additional samples collected on a single day in 1997. However, the previous data submitted by the commenter, under a wider variety of times and conditions, indicated numerous fecal coliform levels over 1,000 cfu/100 ml, a violation of the existing water quality standard. The Division considers the previous data to be more representative of conditions in Drakes Branch.

**Written Comment.** *Additional dry weather sampling in Dry Fork justifies delisting the stream. Collection system failure should not be listed as source.*

**Division Response:** The commenter submitted three additional samples collected on a single day in 1997. However, the previous data submitted by the commenter, under a wider variety of times and conditions, indicated numerous fecal coliform levels over 1,000 cfu/100 ml, a violation of the existing water quality standard. The Division considers the previous data to be more representative of conditions in Dry Fork. "Undetermined source" will replace "collection system failure" as source.

**Written Comment.** *Additional dry weather sampling in Little Creek justifies delisting the stream. Collection system failure should not be listed as source.*

**Division Response:** The Division agrees and will remove the reference to pathogens and collection system failure. The stream will remain listed for siltation. As this section was not 303(d) listed in 1998, it will not be considered a formal delisting.

**Written Comment.** *Additional dry weather sampling in Ewing Creek justifies delisting the stream for pathogens. Collection system failure should not be listed as source. The stream should be partially supporting rather than not supporting.*

**Division Response:** The commenter submitted one additional sample from 1997. However, the previous data submitted by the commenter, under a wider variety of times and conditions, indicated numerous fecal coliform levels over 1,000 cfu/100 ml, a violation of the existing water quality standard. The Division considers the previous data to be more representative of conditions in Ewing Branch.

However, we agree to remove collection system failure as a source and will upgrade the stream to partially supporting.

**Written Comment.** *As the Whites Creek pumping station only overflows during wet weather conditions, the stream could be upgraded to partially supporting.*

**Division Response:** Due to the magnitude of the violations of the pathogen standard, we consider “not supporting” to be the appropriate category for this section, which is also posted against water contact recreation.

**Written Comment.** *Additional dry weather sampling in the middle portion of Whites Creek justifies delisting the segment for pathogens. Collection system failure should not be listed as source.*

**Division Response:** The Division agrees and will remove the reference to pathogens and collection system failure. The stream will remain listed for siltation. As this section was not 303(d) listed in 1998, a basis for “delisting” is not required.

**Written Comment.** *Additional dry weather sampling in the Middle Fork of Browns Creek justifies delisting the segment for pathogens. Collection system failure should not be listed as source.*

**Division Response:** The Division agrees and will remove the reference to pathogens and collection system failure. The stream will remain listed for habitat alterations. As this section was not 303(d) listed in 1998, it will not be considered a formal delisting.

**Written Comment.** *Additional dry weather sampling in West Fork Browns Creek justifies delisting the stream for pathogens. Organic enrichment/low DO should not be a cause and collection system failure should not be listed as source.*

**Division Response:** The Division agrees to remove collection system failure as a source, but does not agree that the causes should be modified. Data we collected at mile 0.1 indicate violations of water quality standards.

**Written Comment.** *Only the lower 0.2 miles of Browns Creek is impacted by collection system failure. Segment 1000 should be split so that sources can be more accurately assigned.*

**Division Response:** The Division agrees to split this segment and only assign collection system failure as a source in the lower 0.2 mile on Section 1000 of Browns Creek.

**Written Comment.** *As the Dry Creek pumping station only overflows during wet weather conditions, the stream could be upgraded to partially supporting.*

**Division Response:** Due to the magnitude of the violations of the pathogen standard, we consider “not supporting” to be the appropriate category for this section, which is also posted against water contact recreation.

**Written Comment.** *Only the lower 0.3 miles of Pages Branch is impacted by collection system failure. Segment 1000 should be split so that sources can be more accurately assigned. As the Pages Branch pumping station only overflows during wet weather conditions, the stream could be upgraded to partially supporting.*

**Division Response:** Section 1000 of Pages Branch will be split at I –65. Collection system failure will only be assigned as a source for the lower segment. Due to the magnitude of the fecal coliform violations, we consider “not supporting” to be the appropriate category.

**Written Comment.** *Additional dry weather sampling in Loves Branch justifies delisting the segment for pathogens. Collection system failure should not be listed as source.*

**Division Response:** The Division agrees and will remove the reference to pathogens and collection system failure. The stream will remain listed for habitat alterations. As this section was not 303(d) listed in 1998, a basis for “delisting” is not required.

**Written Comment.** *Additional dry weather sampling in the middle portion of Whites Creek justifies delisting the segment for pathogens. Collection system failure should not be listed as source.*

**Division Response:** The Division agrees and will remove the reference to pathogens and collection system failure. The stream will remain listed for siltation. As this section was not 303(d) listed in 1998, a basis for “delisting” is not required.

**Written Comment.** *Collection system failure should not be listed as source for the Unnamed tributary to Richland Creek (segment 0100). “Unknown” would be more appropriate.*

**Division Response:** The Division will remove the reference to collection system failure and replace it with urban runoff as source.

**Written Comment.** *Pathogens should not be listed as cause and collection system failure should not be listed as source for Murphy Road Branch (segment 0200). If it remains listed, it could be upgraded to partially supporting.*

**Division Response:** The Division will remove the reference to collection system failure and replace it with urban runoff as source. Due to the magnitude of the fecal coliform violations, we consider “not supporting” to be the appropriate category.

**Written Comment.** *Pathogens should not be listed as cause and collection system failure should not be listed as source for Bosley Springs Branch (segment 0400). If it remains listed, it could be upgraded to partially supporting.*

**Division Response:** The Division will remove the reference to collection system failure and replace it with urban runoff as source. Due to the magnitude of the fecal coliform violations, we consider “not supporting” to be the appropriate category.

**Written Comment.** *Additional data have been collected on Belle Meade Branch. Pathogens should not be listed as cause and collection system failure should not be listed as source (segment 0600).*

**Division Response:** The Division agrees and will remove the reference to pathogens and collection system failure.

**Written Comment.** *Only the lower 0.5 miles of Vaughns Gap Branch are impacted by collection system failure. Segment 0700 should be split so that sources can be more accurately assigned.*

**Division Response:** The Division agrees that Section 0700 of Vaughns Gap Branch should be split at Highway 70. Collection system failure will only be assigned as a source for the lower segment. Urban runoff will be added as source for the upper section.

**Written Comment.** *On segments 1000 and 2000 of Richland Creek, the comment field references combined sewer overflows. There are no CSOs in this area. As the collection system only overflows during wet weather conditions, the stream could be upgraded to partially supporting.*

**Division Response:** We will delete the reference to combined sewers. As there is a water contact advisory in this segment of Richland Creek, we consider “not supporting” to be the appropriate category.

**Written Comment.** *On segment 3000 of Richland Creek, the collection system only overflows during wet weather conditions. The stream could be upgraded to partially supporting.*

**Division Response:** Due to the historical magnitude of fecal coliform violations in this segment, we consider “not supporting” to be the appropriate category.

**Written Comment.** *Only the lower 0.2 miles of McCrory Creek are impacted by pathogens from collection system failures. The segment should be split so that sources can be more accurately assigned.*

**Division Response:** The Division agrees that Section 0100, McCrory Creek, should be split. Pathogens from collection system failure will only be assigned as cause and source for the lower segment. Neither pathogens nor collection system failure will be listed for the upper section.

**Written Comment.** *The historical collection system bypass point on East Branch Hamilton Creek is actually into the embayment of Percy Priest Lake rather than to the stream. Additionally, due to system rehabilitation efforts, there have been no recent bypasses. Pathogens from collection system failures should be removed as a cause and source for this stream.*

**Division Response:** The Division agrees. As we have taken steps to formally remove the water contact advisory from the embayment, we will remove this reference.

**Written Comment.** *The Harpeth River should not be listed for low dissolved oxygen as levels average over 5 mg/L.*

**Division Response:** Tennessee's water quality standard for dissolved oxygen (1200-4-3-.03(3)(a) is not based on average levels. The excursions of dissolved oxygen levels below 5 mg/L in the Harpeth are of such magnitude, frequency, and duration as to constitute a water quality standards violation.

**Written Comment.** *The Division should have undertaken a rapid bioassessment protocol level III (RBPIII) study on the Harpeth in addition to the biorecons it performed.*

**Division Response:** The results of the biorecons performed by the Division indicated continuing water quality impairment. A consultant enlisted by the city of Franklin performed the more intensive RBPIII study, which indicated a similar conclusion.

**Written Comment.** *In the draft 303(d), the listing for the Harpeth River ends at the West Harpeth River. Low dissolved oxygen levels extend further downstream.*

**Division Response:** At the time the original assessment for the Harpeth was performed, some of the dissolved oxygen data we now have were not available. In 2000, EPA performed a dissolved oxygen study of the Harpeth. On two occasions in 2002, TDEC placed specialized dissolved probes in four locations downstream of Franklin, and one location upstream. Dissolved oxygen levels at all five sites went below 5 mg/L. At four of the stations, DO levels below 3 mg/L were documented.

We propose to extend the 303(d) listing downstream to the Interstate 40 bridge crossing near the subcoregion boundary between 71h and 71f (near Peagram).

**Written Comment.** *Kelly Creek in Williamson County should be 303(d) listed.*

**Division Response:** The commenter did not explain the basis for this opinion. The water quality data available to us, including data collected by Williamson County, indicates that Kelley Creek is a high quality stream supporting all its designated uses.

**Written Comment.** *Flatrock Branch in Williamson County should be 303(d) listed.*

**Division Response:** The Division recently reassessed Flatrock Branch. The results of our survey indicate that the biological integrity of the section of the creek downstream of Fairview's sewage treatment plant is substantially different than the upstream section. Based on these results, we have listed the stream.

**Written Comment.** *Highway 840 is unfairly identified as the source of silt in several Harpeth River watershed streams. There may be additional sources of silt to these streams.*

**Division Response:** We generally agree with the commenter that there may be additional sources of silt in these streams. But at the time the assessments for these streams were made, there was clear linkage to the Highway 840 construction site.

**Written Comment.** *There is no evidence of loss of use support in the streams identified as being impacted by Highway 840.*

**Division Response:** Some of these streams had silt accumulations more than a foot deep. We consider the listing to be properly made.

**Written Comment.** *Impacts for road construction projects such as Highway 840 often represent temporary conditions responsive to remediation efforts. On that basis, the streams identified as impacted by Highway 840 should not be listed.*

**Division Response:** We generally agree with the commenter that with rapid and proper remediation efforts, water quality impacts from road construction sites may be temporary in nature. But there has been no suitable remediation plan finalized for Highway 840 impacts.



**Written Comment.** *TVA has attempted to mitigate dissolved oxygen and flow issues below South Holston Reservoir. Please make a note of this in the comments field.*

**Division Response:** We will add these comments. We note that thermal alteration is also listed as a cause of nonsupport in the tailwaters.

**Written Comment.** *Little Creek, a tributary to Beaver Creek, is listed for pathogens. Virginia recently developed a TMDL for this stream, which could be delisted.*

**Division Response:** We were unaware of this completed TMDL and will move Little Creek to Appendix C. We appreciate the efforts of the state of Virginia to develop control strategies for this interstate water.

**Written Comment.** *That the Holston River is a trout fishery below Cherokee Dam should be noted.*

**Division Response:** We will add this comment.

**Written Comment.** *Data from the Nuclear Regulatory Commission do not appear to have been used in the assessment of the Nolichucky and its tributaries in the vicinity of Erwin.*

**Division Response:** We are unaware of these data and they have not been submitted as part of the review process.

**Written Comment.** *The proposed uranium processing site in Unicoi County should be used as justification for the 303(d) listing of area streams.*

**Division Response:** The proposed siting of an industrial facility is not appropriate grounds for 303(d) listing. However, according to best available information, the uranium processing plant will not be located in Unicoi County.

**Written Comment.** *Radionuclides should have been listed for the following streams in Unicoi County: Martin Creek, Banner Spring Branch, and Nolichucky River.*

**Division Response:** With the limited information provided, we are unable to conclude that a water quality standard is being violated in these streams.

**Written Comment.** *TVA has attempted to mitigate dissolved oxygen and flow issues below Douglas Reservoir. This should be included in the comments. The length of the segment indicated as impacted could also be reduced.*

**Division Response:** We significantly reduced the length of the French Broad River considered impacted from low DO from the 1998 version (30 miles) to the new version (4.9 miles). We will add the requested information in the comments.

**Written Comment.** *A Superfund remediation project has taken place on Sweetwater Creek. Contaminated sediments have been successfully removed from the section previously considered impacted. With the successful completion of this control strategy, priority organics, arsenic, copper, and chromium can be delisted from the segment.*

**Division Response:** We agree with this recommendation and will add Sweetwater Creek and the above pollutants to Appendix C. Sweetwater Creek will remain on the list for siltation, a pollutant unrelated to the Superfund site.

**Written Comment.** *The construction of dams along the Little Tennessee River in Tennessee has had a substantial effect on water quality and aquatic species with special status. Each reservoir (Tellico, Chilhowee, and Calderwood) should be 303(d) listed.*

**Division Response:** We agree that the effects of these dams have been substantial. It should be noted that Tellico Reservoir is currently 303(d) listed and appears to have the poorest water quality of the three. Chilhowee and Calderwood do not obviously violate water quality standards. However, the “bypass section” below Calderwood is impacted by flow alteration and will be added to the 303(d) List.

**Written Comment.** *TVA has injected oxygen into the forebay of Fort Loudoun Reservoir to improve dissolved oxygen levels. This should be included in the comments.*

**Division Response:** We will add the requested information in the comments.

**Written Comment.** *Due to the recent oil spill, Clear Creek should be added to the 303(d) List. Clear Creek is a tributary to Obed River.*

**Division Response:** The oil spill certainly had an impact on Clear Creek. At this time, we cannot determine whether the impact is temporary or more permanent. Mitigation plans are in the process of being developed. If the impact appears to be temporary, 303(d) listing would not be appropriate.

**Written Comment.** *The streams impacted by the Department of Energy's facilities in Oak Ridge (East Fork Poplar Creek, Poplar Creek, White Oak Creek) have been improperly deleted from the 303(d) List.*

**Division Response:** Both East Fork Poplar Creek and Whiteoak Creek are listed on page 54 of the draft. Other than its embayment, Poplar Creek is not directly affected by pollutants from the DOE site. (The embayment is considered part of Watts Bar Reservoir.)

**Written Comment.** *TVA has used turbine venting and turbine pulsing in Norris Reservoir to improve dissolved oxygen levels. This should be included in the comments.*

**Division Response:** The segment is not listed for dissolved oxygen, but rather flow and temperature alterations. Turbine pulsing may contribute to these problems.

**Written Comment.** *On Market Street Branch near Chattanooga, the collection system problem is not near City High School. Can the comment be revised?*

**Division Response:** The Division agrees and will revise the comment for this segment.

**Written Comment.** *On Nine-Mile Creek near Chattanooga, research undertaken by the city indicates that the source of pollutants causing low DO is agricultural, rather than urban runoff.*

**Division Response:** The Division agrees and will change the source from urban runoff to agricultural.

**Written Comment.** *On the unnamed tributary to North Chickamauga Creek near Grubb Road, the habitat alteration that is causing the loss of use support was authorized by the Division.*

**Division Response:** It is unacceptable for activities to cause the loss of use support, regardless of whether or not they were authorized.

**Written Comment.** *On Gillespie Springs Branch, a tributary to Chattanooga Creek, can the reference to St. Elmo be removed? The more likely source of pollutants is the Alton Park area.*

**Division Response:** The Division agrees and will revise the comment.

**Written Comment.** *The source for the unknown toxicity noted below Parksville Reservoir should be identified as “upstream contaminated sediment”*

**Division Response:** The commenter did not provide evidence for this position. We are uncertain how upstream sediment contamination could affect aquatic life below the dam, unless substantial amounts of sediment were being released.

**Written Comment.** *TVA does not actively sluice sediment from Ocoee Number III. However, some is discharged in conjunction with recreational releases of water. The comment field should be revised.*

**Division Response:** We have made this revision to the comment field to reflect the updated information.

**Written Comment.** *Water releases below Ocoee Number 2 are based on an existing 35-year agreement between the state and TVA.*

**Division Response:** We believe the listing is proper. The referenced agreement was based on water quantity issues, not water quality.

**Written Comment.** *TVA has used turbine venting and turbine pulsing at Apalachia Dam to mitigate flow issues and to improve dissolved oxygen levels in the Hiwassee. This section should not be listed.*

**Division Response:** The commenter is referring to a different section of the Hiwassee. We have proposed listing the “cutoff section” above the powerhouse for flow alteration, not the section below the powerhouse. Biological surveys performed by TVA in this section indicate that the state’s biological integrity criterion is not being met.

**Written Comment.** *TVA has new biological data below Normandy Dam that indicates good biological integrity. Additionally, the DO standard is being met.*

**Division Response:** The 2002 303(d) List does not include this section for low DO. However, flow alteration, temperature modifications, and manganese are listed. We are unfamiliar with the biological data cited and do not believe that it was included with the other information submitted by the commenter.

**Written Comment.** *The South Fork of the Forked Deer River was improperly proposed for delisting in Appendix C.*

**Division Response:** The South Fork Forked Deer is still listed for siltation and habitat alterations. We consider the delisting for fecal coliforms to be proper as a TMDL has been generated and approved.

**Written Comment.** *The following Hatchie River tributaries should not be delisted: Clover Creek, Porters Creek, Bear Creek, and Cypress Creek.*

**Division Response:** On Bear Creek and Cypress Creek, we merely refined our assessment. Both streams have sections still listed and are not part of Appendix A, B, or C. Clover and Porters creeks are proposed for delisting because our data indicates that the water quality standard is being met. We consider our rationale to be proper.

**Written Comment.** *The “valley plugs” formed in some Hatchie River tributaries are proper grounds for 303(d) listing.*

**Division Response:** Valley plugs are deposits of sand that form in the downstream reaches of a stream that has been channelized. They are a very predictable hydrological response to the previous damage done to the stream. It is the view of the Division that the valley plugs are not indications of pollution, but rather, signs that the stream is on its way to recovery. Left alone, the stream will revert to a more natural condition. 303(d) listing would not assist this process.

If streams with valley plugs fail to meet state standards, we will list them on the 303(d) List. But we will not list them simply because they have valley plugs.

**Written Comment.** *Horn Lake Creek was improperly proposed for delisting. It was not included in the Nonconnah Creek TMDL.*

**Division Response:** We agree and will restore pathogens to the Horn Lake Creek listing and delete it from Appendix C.

**Written Comment.** *Agriculture should be added as a source of siltation to Big Creek and Royster Creek in Shelby County.*

**Division Response:** We will add agriculture to the sources for Big Creek. Royster Creek is not specifically listed on the draft 303(d) List.